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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/726,306

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Louis J. Kerofsky

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EXAMINER

ALAM, MUSHFIKH I

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/726,306	Applicant(s) KEROFSKY, LOUIS J.	
	Examiner MUSHFIKH ALAM	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 3, 5, filed 1/29/2008 have been fully considered but they are not persuasive.
2. Applicant's arguments with respect to claims 1-2, 4 have been considered but are moot in view of the new ground(s) of rejection.

Claims 3 and 5, Applicant argues that applicant respectfully disagrees. The metadata tags of Hu are used to synchronize two data streams. Thus there is, at least, a one-to-one correspondence between a pair of metadata tags, one in each data stream, allowing the synchronization. The metadata tags of Hu must exist in corresponding pairs for synchronization utility. The marker frames of the currently claimed embodiments of the applicant's invention do not necessarily have one-to-one correspondence between data streams. Therefore, the metadata tags of Hu may not be used to teach the applicant's marker frames. Additionally, synchronization requires delay of one data stream until a matching metadata tag is encountered which defeats the low latency access of the one data stream.

In response to Applicant's argument, reading the claimed 'marker frames' in the broadest sense, it may be interpreted that the metadata tags of Hu may be used in order to denote spacings related to latencies regardless of one-to-one correspondence.

In further response to Applicant's argument, the synchronization delays associated with the metadata tags of Hu may be kept very slight (paragraph [0048]) and

therefore will not defeat having low latency, which is taught by Burns. Disclosed in paragraph [0016] of the specification, recites that there is a delay of about ¼ seconds associated with the data streams. Thus, keeping delays of Hu, which may be user controlled, to about 1/4 seconds will accomplish having low latency.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. (5995518) in view of Krishnamurthy et al. (6665872).

Claim 1, Burns teaches a method associated with minimizing random-access latency to a compressed source video data stream which is characterized with one access latency and one resolution, said method comprising:

- engaging such a source video data stream (column 4, line 60-column 5, line 5, column 5, lines 39-41), and
- dividing that engaged data stream into two, downstream-deliverable video data streams that are characterized by differing, respective access latencies and resolutions (bandwidths), one of which downstream-deliverable video data streams is characterized, relatively speaking, by a low access

latency and a low resolution (low bandwidth), and the other of which is characterized, in comparison, by a higher access latency and a higher resolution (high bandwidth. Higher bandwidth channels are used for higher resolution objects (column 2, lines 9-21, column 5, lines 44-61).

Burns is silent regarding a method comprising:

- transmitting said two, downstream-deliverable video data streams using a first communication channel, wherein said transmitting comprises multiplexing said two, downstream-deliverable video data streams.

Krishnamurthy teaches a method comprising:

- transmitting said two, downstream-deliverable video data streams using a first communication channel, wherein said transmitting comprises multiplexing said two, downstream-deliverable video data streams (col. 4, lines 20-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a single shared communication channel with traffic control as taught by Krishnamurthy to the system of Burns to control transmission of the shared communication channel when multiple compressed video stream are generated by a plurality of video applications. This enables bandwidth and latency utilization and optimization (col. 2, line 66-col. 3, line 45)

Claim 2, Burns teaches the method wherein the two downstream-deliverable data streams are time-synchronized (column 4, lines 39-41).

Claim 4 is analyzed as an apparatus of claim 1.

5. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. (5995518) in view of Hu et al. (2006/0156374) and further in view of Lin et al. (2002/0095681).

Claim 3, note the discussion of claim 1 above.

Burns teaches a two-video-data-stream characterized video data (column 2, lines 5-21).

Burns is silent regarding where such access latencies are differentiated by different time spacings that exist between designated video marker frames placed in the data streams, with larger spacings between such marker frames relating to larger access latencies, and with smaller such spacings relating to smaller access latencies, said method comprising

- seeking access to the received, two-video-data-stream characterized video data,
- in relation to said seeking, monitoring the two, associated video data streams to detect the first occurrence in either stream of a marker frame,
- on detecting such an occurrence, selecting the associated data stream to be the source for a viewable output stream, and
- (a) if the first detected occurrence involves a marker frame in the mentioned other video data stream, ending the monitoring and selecting process, but
- (b) if the first detected occurrence involves a marker frame in the mentioned one video data stream, continuing to monitor the other video data stream to detect therein the first next occurrence of a marker frame, and on that detection taking place, switching to and selecting that other video data

stream to be the source for a viewable output stream, and then ending the monitoring and selecting process.

Hu teaches a method wherein designated marker frames (metadata tags) exist relating to spacings (delay lines) relating to access latencies (delay in time) (paragraph [0043]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided marker frames embedded in streams as taught by Hu to the low-latency communication system of Burns in order to achieve synchronization (paragraph [0043]).

Lin teaches a method wherein

- seeking access to the received video data (multiple formats of data) (paragraph [0049]);
- in relation to said seeking, monitoring the two, associated video data streams to detect the first occurrence in either stream of a marker frame (priority data) (paragraph [0049]),
- on detecting such an occurrence, selecting the associated data stream (stream with highest priority) to be the source for a viewable output stream (viewable by access device) (paragraph [0049]); and
- if the first detected occurrence involves a marker frame (priority data denoting time-sensitive data) in the mentioned other video data stream, ending the monitoring and selecting process. If the first stream received is of the highest priority it will automatically pass it on to the reserved path (fig. 12; paragraph [0049]), but
- if the first detected occurrence involves a marker frame in the mentioned one video data stream, continuing to monitor the other video data stream (for higher priority data) to detect therein the first next occurrence of a marker frame (high priority data), and on that detection taking place, switching to and selecting that other video data stream to be the source for a viewable output stream (reserving a

channel for the data with the highest priority), and then ending the monitoring and selecting process (paragraphs [0049]-[0050]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a transmission priority scheme as taught by Lin to the low-latency system communication system of Burns as modified with marker frames within a video signal as taught by Hu because it allows certain types of video data (time sensitive, real-time) to be transmitted with suffering considerable delays (paragraph [0005]).

Claim 5 is analyzed as an apparatus of claim 3.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUSHFIKH ALAM whose telephone number is (571)270-1710. The examiner can normally be reached on Mon-Fri: 8:30-18:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on (571) 272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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4/1/2008

/Vivek Srivastava/

Supervisory Patent Examiner, Art Unit 2623